

Name: _____

Date: _____

FOIL when $A \neq 1$ solution (version 12)

FOIL the expressions shown below:

1. $(3x - 3)(-8x + 9)$

$$\begin{aligned} & (3)(-8)x^2 + (3)(9)x + (-3)(-8)x + (-3)(9) \\ & (-24)x^2 + (27)x + (24)x + (-27) \\ & -24x^2 + 51x - 27 \end{aligned}$$

2. $(-2x - 8)(5x + 4)$

$$\begin{aligned} & (-2)(5)x^2 + (-2)(4)x + (-8)(5)x + (-8)(4) \\ & (-10)x^2 + (-8)x + (-40)x + (-32) \\ & -10x^2 - 48x - 32 \end{aligned}$$

3. $(3x - 4)(3x + 5)$

$$\begin{aligned} & (3)(3)x^2 + (3)(5)x + (-4)(3)x + (-4)(5) \\ & (9)x^2 + (15)x + (-12)x + (-20) \\ & 9x^2 + 3x - 20 \end{aligned}$$

4. $(-2x + 2)(8x - 2)$

$$\begin{aligned} & (-2)(8)x^2 + (-2)(-2)x + (2)(8)x + (2)(-2) \\ & (-16)x^2 + (4)x + (16)x + (-4) \\ & -16x^2 + 20x - 4 \end{aligned}$$

5. $(-5x + 7)(-3x + 5)$

$$\begin{aligned} & (-5)(-3)x^2 + (-5)(5)x + (7)(-3)x + (7)(5) \\ & (15)x^2 + (-25)x + (-21)x + (35) \\ & 15x^2 - 46x + 35 \end{aligned}$$

FOIL the expressions shown below:

6. $(9x + 7)(3x - 3)$

$$\begin{aligned}(9)(3)x^2 + (9)(-3)x + (7)(3)x + (7)(-3) \\ (27)x^2 + (-27)x + (21)x + (-21) \\ 27x^2 - 6x - 21\end{aligned}$$

7. $(4x + 6)(6x + 9)$

$$\begin{aligned}(4)(6)x^2 + (4)(9)x + (6)(6)x + (6)(9) \\ (24)x^2 + (36)x + (36)x + (54) \\ 24x^2 + 72x + 54\end{aligned}$$

8. $(-4x + 4)(-3x + 8)$

$$\begin{aligned}(-4)(-3)x^2 + (-4)(8)x + (4)(-3)x + (4)(8) \\ (12)x^2 + (-32)x + (-12)x + (32) \\ 12x^2 - 44x + 32\end{aligned}$$

9. $(-5x - 7)(5x - 8)$

$$\begin{aligned}(-5)(5)x^2 + (-5)(-8)x + (-7)(5)x + (-7)(-8) \\ (-25)x^2 + (40)x + (-35)x + (56) \\ -25x^2 + 5x + 56\end{aligned}$$

10. $(9x - 2)(2x - 2)$

$$\begin{aligned}(9)(2)x^2 + (9)(-2)x + (-2)(2)x + (-2)(-2) \\ (18)x^2 + (-18)x + (-4)x + (4) \\ 18x^2 - 22x + 4\end{aligned}$$